

P-Listed Chemicals and Empty Containers: Management and Disposal Guidelines

Hospitals, pharmacies, and other healthcare providers use a variety of products that contain hazardous chemicals, including those that are considered acutely hazardous or P-listed chemicals when they become “waste.” Unused or expired P-listed chemicals are managed under the New Hampshire Hazardous Waste Rules (Env-Wm 100-1100) whether they are the sole active ingredient or a formulation.

Healthcare facilities that generate over one kilogram or 2.2 pounds per month of P-listed wastes are full quantity generators of hazardous waste in New Hampshire [Env-Wm 503.02 (a)] and must adhere to stringent hazardous waste regulations (Env-Wm 509).

Containers and inner liners that have held acutely hazardous wastes (P-listed) are deemed empty if the containers or inner liners have been triple rinsed and no residue can be removed from the container [Env-Wm 401.03(h)(3)]. The rinsate is considered a hazardous waste mixture and must be managed accordingly. If the container is not rinsed out prior to disposal, then the container and the contents must be managed as a hazardous waste.

Examples of P-Listed Pharmaceutical Waste (The complete list of P-listed chemicals can be found at Env-Wm 402.04.):

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|----------------------------|--------|
| • Arsenic trioxide | (P012) |
| • Epinephrine | (P042) |
| • Nicotine | (P075) |
| • Nitroglycerin | (P081) |
| • Phentermine (CIV) | (P046) |
| • Physostigmine | (P204) |
| • Physostigmine Salicylate | (P188) |
| • Warfarin >0.3% | (P001) |



Management Example: Products with expired shelf lives

Occasionally, some products' shelf lives expire. Facilities should:

1. Return the product to a distribution company or manufacturer through a “take-back” program. Review the facility's group purchasing organization contract for further information. Some of these services are included in the contract.
2. Create an inventory control program to limit the amount of products that expire before use. Resources spent on the management of expired products are resources lost.
3. Example, when unused physostigmine is the sole-active ingredient, it must be managed as a hazardous waste. The waste code on the manifest should be P204. This amount will also count towards the hazardous waste generation status.

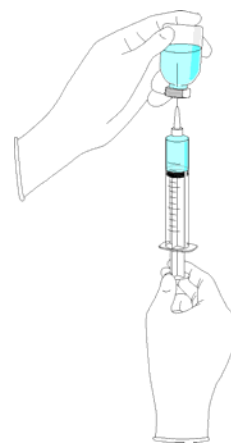
Management Example: Empty Epinephrine Containers

1. Epinephrine rinsates are hazardous waste mixtures and should be manifested as a hazardous waste using code P042. The rinsed out container of the epinephrine is now considered empty and can be disposed as solid waste.
2. “Empty” epinephrine containers that are not rinsed out are hazardous waste and need to be managed accordingly and manifested using code P042.

Facilities cannot dispose of empty P-listed chemical containers that have not been properly rinsed in the medical “red bag” waste or in the solid waste “trash.”

Management Example: Nitroglycerin Formulations

1. Later in 2004, the Department of Environmental Services will be proposing revisions to the New Hampshire Hazardous Waste Rules that will result in certain wastes no longer being subject to the hazardous waste requirements, including medicinal nitroglycerine formulations, such as unused creams, tablets or capsules.
2. In the meantime, facilities that are disposing of unused medicinal nitroglycerin formulations may apply for a waiver to the hazardous waste requirements by writing to: NH Department of Environmental Services, Waste Management Division, Hazardous Waste Compliance Section, PO Box 95, Concord NH 03302-0095. Questions about the rules or the waiver may be directed to the Hazardous Waste Assistance Hotline at 271-2942 or 1-866-429-9278.



Healthcare facilities that use P-list chemicals should review current waste management procedures and make appropriate changes in order to adhere to New Hampshire Hazardous Waste Rules. For example, if a healthcare facility uses epinephrine, the hazardous waste manifests on record should have a waste stream P042, either for the rinsate or the non-rinsed container. If it does not, this could be a “flag” to regulatory programs that hazardous waste may not be managed properly at that facility.

Pollution Prevention at Healthcare Facilities

Since 1998, the Department of Environmental Services New Hampshire Pollution Prevention Program has undertaken a project promoting pollution prevention opportunities at healthcare facilities. This on-going project involves providing on-site assistance at participating facilities, setting up an infrastructure to promote continuous environmental improvement, and providing outreach and training activities to N.H. healthcare facilities.

For further information on Pollution Prevention at Healthcare Facilities, contact Sara Johnson, DES, at (800) 273-9469 or sjohnson@des.state.nh.us.

For further information on the New Hampshire Hazardous Waste Rules, contact the Hazardous Waste Compliance Section toll free at (866) – HAZWAST.

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